

The diagram illustrates the GPRS network architecture. It shows the following components and their connections:

- MS (Mobile Station):** Represented by a mobile phone icon on the left.
- RADIO INTERFACE:** A vertical dashed line separating the MS from the BSS.
- BSS (Base Station Subsystem):** A box containing a radio tower icon labeled **BS** and the label **BSS**.
- G_b INTERFACE:** A vertical dashed line separating the BSS from the SGSN.
- SGSN (Serving GPRS Subsystem):** A box representing the core network element that manages the GPRS session.
- HLR (Home Location Register):** A box connected to the SGSN, used for subscriber data.
- GGSN (Gateway GPRS Subsystem):** A box connected to the SGSN, which acts as the gateway to the external network.
- PDN (Public Data Network):** The external network connected to the GGSN.

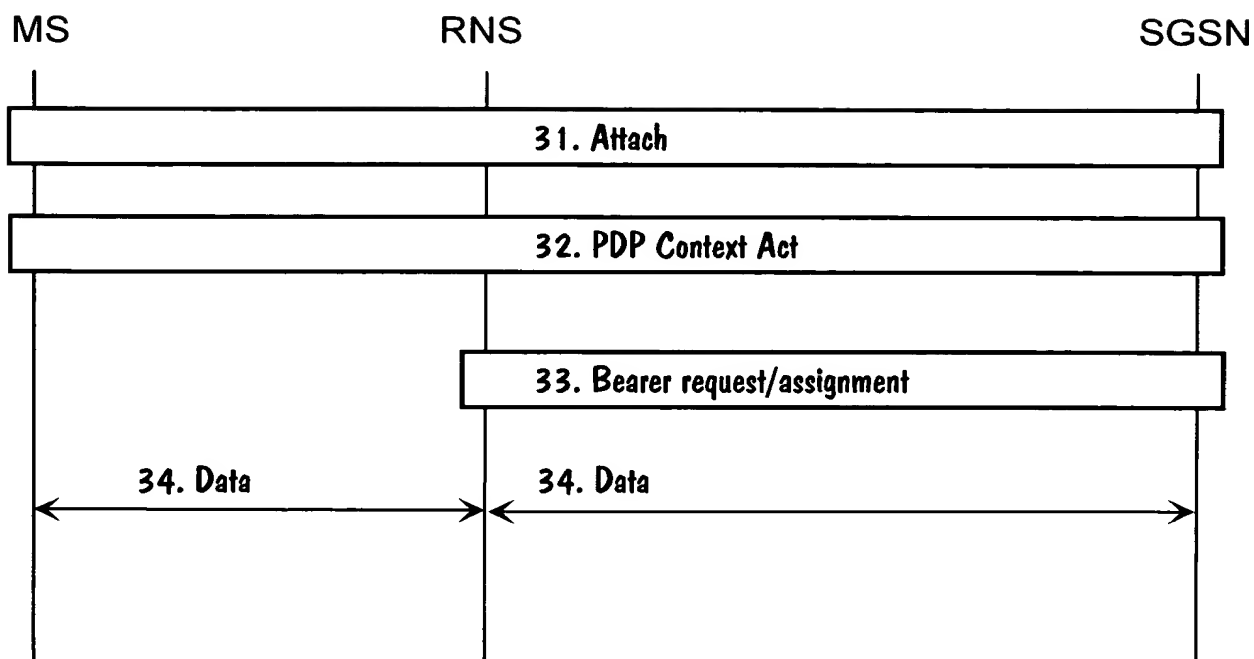
Connections are shown as follows:

- A double-headed arrow connects the **MS** to the **BS** within the **BSS** box, crossing the **RADIO INTERFACE**.
- A solid line connects the **BSS** box to the **SGSN** box, crossing the **G_b INTERFACE**.
- A solid line connects the **SGSN** box to the **HLR** box.
- A solid line connects the **SGSN** box to the **GGSN** box.
- A solid line connects the **GGSN** box to the **PDN**.

The diagram illustrates the 3G network architecture, showing the flow of data and signaling between various components. The architecture is divided into three main sections by vertical dashed lines:

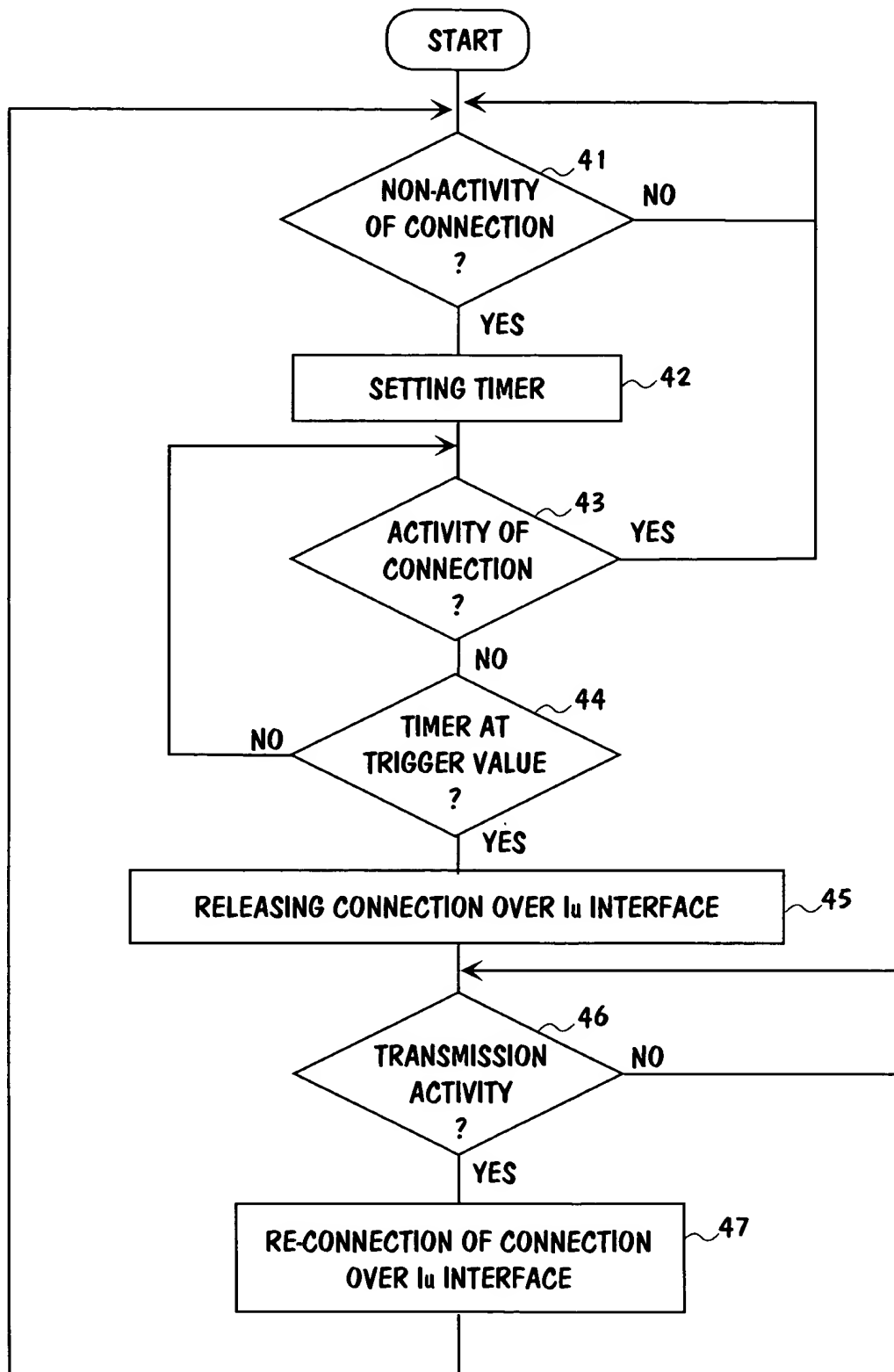
- Radio Network System (RNS):** This section includes the **MS** (Mobile Station) and the **RNS** (Radio Network System) which contains a **BS** (Base Station). The **MS** is connected to the **RNS** via the **RADIO INTERFACE**.
- Core Network (CN):** This section includes the **3G MSC / VLR**, **3G SGSN**, and **GGSN**. The **RNS** is connected to the **3G MSC / VLR** and the **3G SGSN** via the **I_u INTERFACE**.
- External Networks:** The **3G MSC / VLR** is connected to the **PSTN ISDN** and the **HLR** (Home Location Register). The **3G SGSN** is connected to the **HLR** and the **GGSN**. The **GGSN** is connected to the **PDN** (Public Data Network). The **O&M** (Operation and Maintenance) is connected to the **3G SGSN**.

Fig. 3



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Fig. 4



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Fig. 5

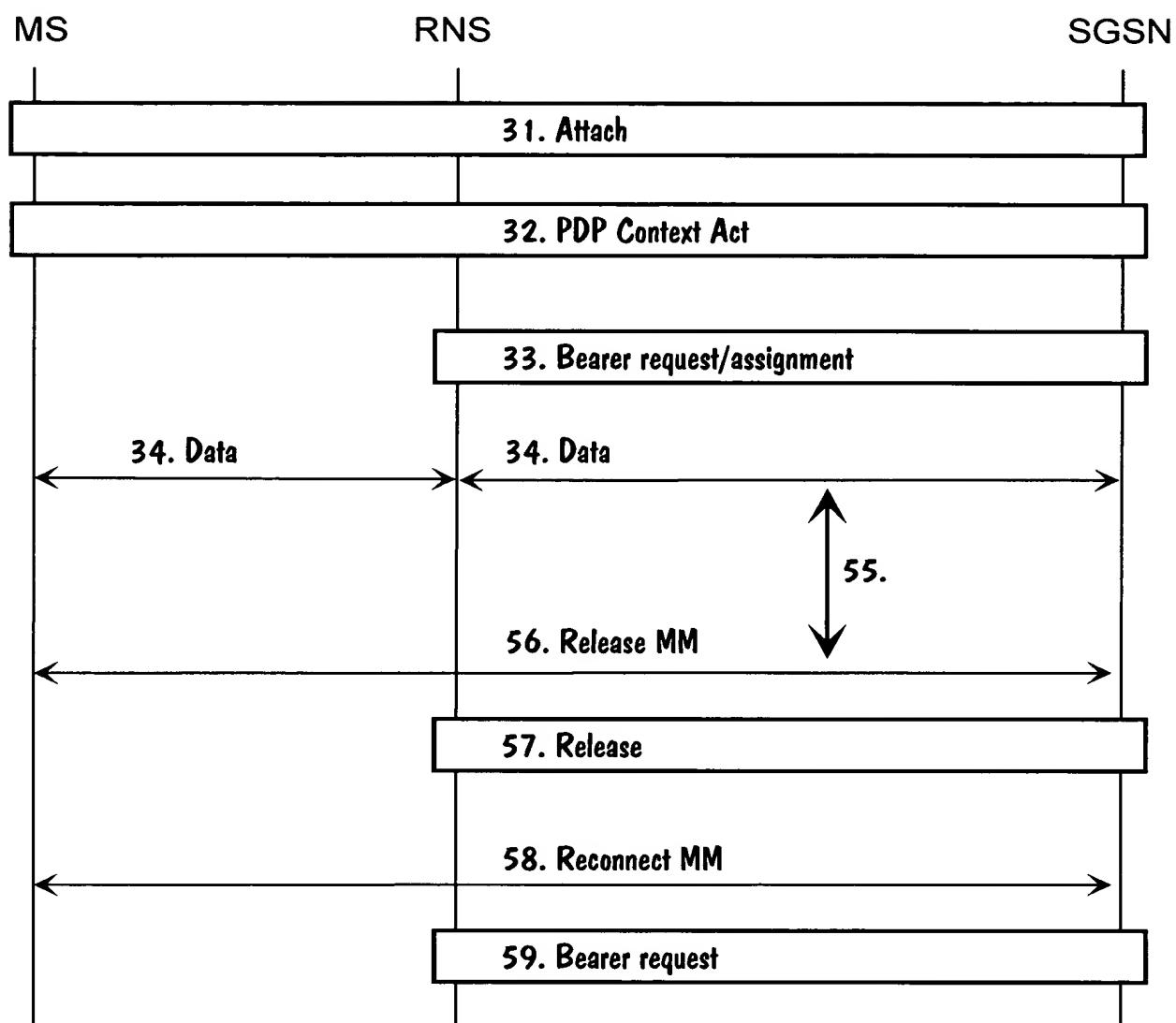


Fig. 7

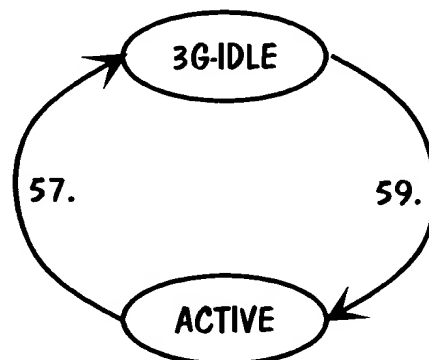


Fig. 9

